



Dar Al-Handasah Consultants
(Shair and Partners)

In Joint Venture

NES National Engineering Services
PAK Pakistan (Pvt.) Limited

P21161/A/L0001-22
4th January, 2022

Project Director (Karachi Mobility Project) YLC
Sindh Mass Transit Authority,
Transport & Mass Transit Department, Government of Sindh
House # D-43; Block 2; Scheme No. 5; Kehkashan, Clifton, Karachi, Pakistan

Project: Consulting Services for Preparation of Detailed Design, Procurement Support and Construction Supervision for Karachi Mobility Project (Yellow BRT)

Subject: New / Changed Requirements Impacting Design Progress

Dear Sirs,

We refer to the ongoing coordination, several discussions and meetings held with SMTA team over the last couple of months. We wish to remind here-below the different design aspects and awaited information/direction from the Client that have major impact on the design progress and submission of project deliverables:

I. **New Operational Design and Business Model "ODBM" Report:**

The latest version of the subject report, received from SMTA on 9/11/2021, has been discussed during the meeting held with SMTA and Logit/Exponent Engineers Consultants on 19/11/2021, where the JV raised several queries and requests for additional information/data. Since that meeting, several follow up e-mails were sent regarding the subject, however the subject will need further technical coordination meeting in presence of Logit / Exponent, to reach a final agreement for the final report outcome to be considered in the design of the Yellow BRT project.

In this regard, we wish to bring to your kind attention that the final outcome and recommendations of the ODBM report have major implications on the design process and schedule of the Yellow BRT Line, and which can be summarized as follows:

1. The modifications in the number and locations of stations will have the following impact:
 - a. Changes to the overall road layout.
 - b. Changes in the geotechnical investigation programme to match the new stations' locations.
2. The boarding, alighting and transfer numbers at each station need to be confirmed by Logit/Exponent Engineers consultants, and more coordination to be undertaken with them is required as highlighted in our earlier communications. This may impact the station sizing and layout.
3. The change in the fleet composition by introducing the 9m bus will impact the depot layout design.
4. The modifications to the off-corridor and feeder routes, where some routes have been added (additional 20.6 km) and some have been deleted (removal of 9.2 km), will have the following implications:
 - a. Some of the feeder routes cannot have direct access to the stations as recommended in the new ODBM report due to the configuration of the junctions as underpass structure. In such case, the boarding, alighting and transfer numbers for each station should be updated, which will accordingly impact the station sizing.

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- b. Need for additional topographical survey for the newly added routes, noting that the topographical survey works for the original routes have been completed.
- c. Need for additional pavement assessment, which was planned to start by mid of December 2021.
- d. Additional design effort to cover the additional length of the off-corridor routes.

It is of utmost importance that SMTA confirms the above changes and Logit/Exponent Engineers consultants provide the needed clarifications and additional information in order to avoid further delays to the dependent work streams as described above.

II. **New Depot Requirements and Site Limits:**

The JV team is unable to proceed with the detailed design of the two depots, due to the following:

1. SMTA requested to study several options for different fuelling mechanism in the depots in the kick-off and subsequent meetings. In response, the JV shared a technical comparison and recommendations pertaining to the depot layout to accommodate flexible fuelling mechanism (latest by e-mail dated 10/12/2021), however, no further confirmation or guidance was received on how to proceed on this. It is to be noted that the final fuelling mechanism will have the following impacts:
 - a. The total number of buses in the fleet will depend on the adopted fuelling mechanism.
 - b. The final layout of the depot will be subject to the facility requirement of the selected fuelling mechanism.
 - c. The station design may also be impacted in case there will be requirements for intermediate fuelling mechanism to be considered at each station.
2. The exact coordinates of both depots are not yet fixed, and coordination is ongoing between SMTA and the JV survey team in order to mark the plot limits on site for necessary consideration in the design works.

In summary, the introduction of the new ODBM report and the new requirements for depot design are hindering the progress of the project. The JV is unable to proceed in the detailed design of the various project components before receiving confirmation and clarifications on the above-raised issues, along with final decisions regarding the depot and fuelling mechanism; this situation is delaying the submission of the detailed design of various packages.

We kindly request SMTA to advise urgently on the above topics, and we shall remain available for any clarification you may find needed.

Yours faithfully

For the JV of Dar Al-Handasah (Shair & Partners) and Nespak Pvt Ltd.



Rabah Ait-Ali,
Authorized Representative
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